

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-10. (Canceled)

11. (Currently Amended) A cryopreservation composition comprising at least one 1,4-cyclohexanediol compound and at least one additional cryoprotectant compound.

12. (Currently Amended) A cryopreservation composition according to claim 11, wherein the at least one 1,4-cyclohexanediol compound is selected from the group consisting of ~~the cis form of 1,3-cyclohexanediol, the trans form of 1,3-cyclohexanediol, the cis form of~~ 1,4-cyclohexanediol, the trans form of 1,4-cyclohexanediol, and racemic mixtures thereof.

13. (Currently Amended) A cryopreservation composition according to claim 11, wherein the 1,4-cyclohexanediol compound is present in the cryopreservation composition in an amount of from 0.05 to 2.0 M.

14. (Currently Amended) A cryopreservation composition according to claim 11, wherein the at least one additional cryoprotectant compound is selected from the group consisting of acetamide, agarose, alginate, ~~1-analine~~L-alanine, albumin, ammonium acetate, butanediol, chondroitin sulfate, chloroform, choline, dextrans, diethylene glycol, dimethyl acetamide, dimethyl formamide, dimethyl sulfoxide (DMSO), erythritol, ethanol, ethylene glycol, formamide, glucose, glycerol,  $\alpha$ -glycerophosphate, glycerol monoacetate, glycine, hydroxyethyl starch, inositol, lactose, magnesium chloride, magnesium sulfate, maltose, mannitol, mannose, methanol, methyl acetamide, methylformamide, methyl ureas, phenol, pluronics, polyethylene glycol, polyvinylpyrrolidone, proline, propylene glycol, pyridine N-oxide, ribose, serine, sodium bromide, sodium chloride, sodium iodide, sodium nitrate, sodium sulfate, sorbitol, sucrose, trehalose, triethylene glycol, trimethylamine acetate, urea, valine and xylose.

15. (Currently Amended) A cryopreservation composition ~~according to claim 11~~ comprising at least one cyclohexanediol compound and at least one additional cryoprotectant compound, wherein the at least one additional cryoprotectant compound is present in the cryopreservation composition in an amount of from 0.1 to 10.0 M.

16. (Currently Amended) A cryopreservation composition ~~according to claim 11~~, ~~wherein the cryopreservation composition further contains~~ comprising at least one cyclohexanediol compound and at least one anti-freeze protein.

17. (Original) A cryopreservation composition according to claim 16, wherein the anti-freeze protein is present in the cryopreservation composition in an amount of from 0.01 to 1 mg/mL of the cryopreservation composition.

18. (Currently Amended) A cryopreservation composition ~~according to claim 11~~, ~~wherein the cryopreservation composition further contains~~ comprising at least one cyclohexanediol compound and at least one anti-freeze glycoprotein.

19. (Original) A cryopreservation composition according to claim 18, wherein the anti-freeze glycoprotein is present in the cryopreservation composition in an amount of from 0.01 to 1 mg/mL of the cryopreservation composition.

20. (New) A cryopreservation composition according to claim 15, wherein the at least one cyclohexanediol compound is selected from the group consisting of the cis form of 1,3-cyclohexanediol, the trans form of 1,3-cyclohexanediol, the cis form of 1,4-cyclohexanediol, the trans form of 1,4-cyclohexanediol, and racemic mixtures thereof.

21. (New) A cryopreservation composition according to claim 15, wherein the cyclohexanediol compound is present in the cryopreservation composition in an amount of from 0.05 to 2.0 M.

22. (New) A cryopreservation composition according to claim 15, wherein the at least one additional cryoprotectant compound is selected from the group consisting of acetamide, agarose, alginate, L-alanine, albumin, ammonium acetate, butanediol, chondroitin

sulfate, chloroform, choline, dextrans, diethylene glycol, dimethyl acetamide, dimethyl formamide, dimethyl sulfoxide (DMSO), erythritol, ethanol, ethylene glycol, formamide, glucose, glycerol,  $\alpha$ -glycerophosphate, glycerol monoacetate, glycine, hydroxyethyl starch, inositol, lactose, magnesium chloride, magnesium sulfate, maltose, mannitol, mannose, methanol, methyl acetamide, methylformamide, methyl ureas, phenol, pluronic polyols, polyethylene glycol, polyvinylpyrrolidone, proline, propylene glycol, pyridine N-oxide, ribose, serine, sodium bromide, sodium chloride, sodium iodide, sodium nitrate, sodium sulfate, sorbitol, sucrose, trehalose, triethylene glycol, trimethylamine acetate, urea, valine and xylose.

23. (New) A cryopreservation composition according to claim 16, wherein the at least one cyclohexanediol compound is selected from the group consisting of the cis form of 1,3-cyclohexanediol, the trans form of 1,3-cyclohexanediol, the cis form of 1,4-cyclohexanediol, the trans form of 1,4-cyclohexanediol, and racemic mixtures thereof.

24. (New) A cryopreservation composition according to claim 16, wherein the cyclohexanediol compound is present in the cryopreservation composition in an amount of from 0.05 to 2.0 M.

25. (New) A cryopreservation composition according to claim 16, wherein the cryopreservation composition further contains at least one additional cryoprotectant.

26. (New) A cryopreservation composition according to claim 18, wherein the at least one cyclohexanediol compound is selected from the group consisting of the cis form of 1,3-cyclohexanediol, the trans form of 1,3-cyclohexanediol, the cis form of 1,4-cyclohexanediol, the trans form of 1,4-cyclohexanediol, and racemic mixtures thereof.

27. (New) A cryopreservation composition according to claim 18, wherein the cyclohexanediol compound is present in the cryopreservation composition in an amount of from 0.05 to 2.0 M.

28. (New) A cryopreservation composition according to claim 18, wherein the cryopreservation composition further contains at least one additional cryoprotectant.

29. (New) A cryopreservation composition comprising at least one cyclohexanediol compound and at least one additional cryoprotectant compound selected from the group consisting of acetamide, agarose, alginate, L-alanine, albumin, ammonium acetate, butanediol, chondroitin sulfate, chloroform, choline, dextrans, diethylene glycol, dimethyl acetamide, dimethyl formamide, erythritol, ethanol, ethylene glycol, glucose, glycerol,  $\alpha$ -glycerophosphate, glycerol monoacetate, glycine, hydroxyethyl starch, inositol, lactose, magnesium chloride, magnesium sulfate, maltose, mannitol, mannose, methanol, methyl acetamide, methylformamide, methyl ureas, phenol, pluronic polyols, polyethylene glycol, polyvinylpyrrolidone, proline, propylene glycol, pyridine N-oxide, ribose, serine, sodium bromide, sodium chloride, sodium iodide, sodium nitrate, sodium sulfate, sorbitol, sucrose, trehalose, triethylene glycol, trimethylamine acetate, urea, valine and xylose.

30. (New) A cryopreservation composition according to claim 29, wherein the at least one cyclohexanediol compound is selected from the group consisting of the cis form of 1,3-cyclohexanediol, the trans form of 1,3-cyclohexanediol, the cis form of 1,4-cyclohexanediol, the trans form of 1,4-cyclohexanediol, and racemic mixtures thereof.

31. (New) A method of cryopreserving cells, comprising bringing the cells into contact with a cryopreservation composition according to claim 11, and subsequently reducing the temperature of the cells to a cryopreservation temperature.

32. (New) A method according to claim 31, wherein the cryopreservation temperature is -20°C or less.

33. (New) A method of cryopreserving cells, comprising bringing the cells into contact with a cryopreservation composition according to claim 15, and subsequently reducing the temperature of the cells to a cryopreservation temperature.

34. (New) A method of cryopreserving cells, comprising bringing the cells into contact with a cryopreservation composition according to claim 16, and subsequently reducing the temperature of the cells to a cryopreservation temperature.

35. (New) A method of cryopreserving cells, comprising bringing the cells into contact with a cryopreservation composition according to claim 18, and subsequently reducing the temperature of the cells to a cryopreservation temperature.

36. (New) A method of cryopreserving cells, comprising bringing the cells into contact with a cryopreservation composition according to claim 29, and subsequently reducing the temperature of the cells to a cryopreservation temperature.